REMARKS

The above-identified Office Action has been reviewed, the references carefully considered, and the Examiner's comments carefully weighed. In view thereof, the present Amendment is submitted. It is contended that by the present amendment, all bases of rejection set forth in the Office Action have been traversed and overcome. Accordingly, reconsideration and withdrawal of the rejection is respectfully requested.

Upon entry of the present amendment, claims 1-6 are pending in the application, of which claim 1 is independent.

Amendments

Applicant has made some minor changes to the specification and to Figure 7 in order to correct typographical errors and minor informalities, including those noted by the Examiner. Figure 7 is specifically amended to replace reference numbers "9c, 9c" with --55, 55--, and corresponding changes are made to associated paragraphs of the specification.

The number of words in the Abstract has been substantially reduced in response to the Examiner's objection.

Claim 1 is amended to more expressly/specifically define that the oil reservoir chambers are *defined by recessed formed in the crankcase and the side cover* ..., and to change "a lubricating oil" to --lubricating oil--, while dependent claims 4 and 5 are amended to be consistent with the amendments to claim 1. New claim 6 further defines that the oil mist is produced by centrifugal force when the scattered oil leaves the rotating crankshaft

Applicant respectfully submits that the above amendments are fully supported by the original disclosure, including the drawings and claims. Applicant also respectfully submits that

no new matter is introduced by the above amendments.

Still further, applicant respectfully submits that the amendments to the specification, abstract and Figure 7 overcome the Examiner's objections to the specification and abstract as set forth at the bottom of page 2 of the Office Action, and it is respectfully requested that the objections be reconsidered and withdrawn.

Art-Based Rejection of Claims

At pages 3-4 of the above-identified Office Action, the Examiner rejected claims 1-5 under 35 USC 102(b) as anticipated by Hirano et al. (US Patent 5,860,403). The Examiner takes the position that Hirano discloses all of the features recited in the claims, including oil reservoir chambers formed in the crankcase and side cover as defined.

Applicant's Response

Upon careful consideration and in light of the above amendments to the claims, applicant respectfully traverses such rejection as submits that present claims 1-5 are clearly, patentably distinct over the Hirano, because Hirano's system does not include (or suggest) features of the claimed invention, nor does Hirano's system achieve the significant advantages that are achieved by the claimed invention.

The Standard for Anticipation

In the case of Motorola, Inc. v. Interdigital Technology Corp., 121 F. 3d 1461 (CAFC 1997), the Court of Appeals for the Federal Circuit stated:

> "For a prior art reference to anticipate a claim, the reference must disclose each and every element of the claim with sufficient clarity to prove its existence in the prior art (citation omitted). 'The (prior art) reference must describe the applicant's claimed invention sufficiently to have placed a person of ordinary skill in the field of the invention in possession of it' (citations omitted) . Although this disclosure requirement presupposes the knowledge of one skilled in the art of the claimed invention, that presumed knowledge does not grant a license to read into the prior art reference teachings that are

not there."

The above-quoted passage is consistent with the many previous and subsequent cases of the Federal Circuit and with MPEP 2131, which reiterate the basic rule that *in order to anticipate a claim, a reference must teach every element of the claim.*

Regarding claim 1, applicant respectfully submits that Hirano's system for producing lubricating oil mist in an engine does not include or suggest a combination of first and second valve-operating chambers together with oil reservoir chambers as defined in this claim, i.e., oil reservoir chambers *for storing lubricating oil up to a level higher than a journal portion of the crankshaft are defined by recesses formed in the crankcase and a side cover to surround the crank chamber and the first valve-operating chamber.*

In this regard, it is not clear from the Examiner's rejection exactly what components of Hirano's system are being asserted as the claimed side cover, oil reservoir chambers and the first valve-operating chamber, but it is respectfully submitted that none of the (arguably) corresponding components of Hirano's system meet the claimed features. For example, while Hirano's system may include an oil reservoir chamber 22 (singular) formed so as to partly surround his crank chamber 23 from the left side, and a valve operating chamber 24 defined at the right side of the crankcase, as viewed in Hirano's Fig. 2, Hirano's system clearly does not disclose (or suggest) the claimed oil reservoir chambers (plural) storing oil up to a level higher than a journal portion of the crankshaft and defined by recesses formed in the crankcase and a side cover to surround the crank chamber *and a first valve-operating chamber.*

To any extent that the Examiner is asserting Hirano's valve chamber 47 corresponds to the claimed first valve-operating chamber and that Hirano's valve operating chamber 24

corresponds to the claimed second valve-operating chamber, applicant respectfully submits that such components of Hirano's system do not, in fact, meet the claimed features. As claimed, the first valve-operating chamber is defined by a side cover bonded to one side of the crankcase, a head cover bonded to a head portion of a cylinder block connected to the crankcase defines the second valve-operating chamber, the second valve-operating mechanism leads to the first, and the valve-operating mechanism is accommodated in a region extending from the first valve-operating mechanism to the second. In contrast, Hirano's valve chamber 47 is defined at the bottom of his crankcase 7 by bottom plate 53,which being *flat* has *no recesses*. As such, it cannot be reasonably interpreted that Hirano's engine includes a side cover defining a first valve-operating chamber, and which also has recess(es) formed therein so as to define oil reservoir chamber(s). Further, Hirano's valve operating device 31 is disposed only in his right valve operating chamber 24, and not in his valve chamber 47, such that Hirano's system does not meet the claimed feature of the valve-operating mechanism being accommodated in a region extending from the first valve-operating mechanism to the second, **if** the valve chamber 47 is being asserted as the first valve-operating chamber.

Still further, according to a very important aspect of the present invention, oil supply passages are provided in the crankshaft to permit a portion of each of the oil reservoir chambers below the oil surface therein to communicate with the crank chamber so that oil passed through the oil supply passages can be scattered to produce an oil mist. Hirano's system does not include such an operative combination of features, but instead includes a conventional, relatively large oil slinger 25 disposed about a portion of the crankshaft 13 within the oil reservoir chamber 22 to generate an oil mist. In the present invention an oil slinger is not required, such that a greatly

simplified structure is achieved, not only in the number of parts, but also in the degree of freedom in designing the shape of the oil reservoir chambers (because they do not contain oil slingers therein), thereby achieving a desirable compactness of the entire engine. As will be appreciated, the claimed lubricating system is free of the disadvantages which oil slingers suffer from, such as resistance against rotation of the oil slinger within the oil, deterioration of the oil due to a rise in temperature caused by shearing resulting from such rotational resistance, etc.

In this regard, applicant notes the Examiner's reference to oil passed through Hirano's oil supply passages can be scattered to produce an oil mist as claimed, but it is respectfully submitted that the Examiner's position is not supported by Hirano's actual disclosure which requires the oil slinger 25 to produce the oil mist in a conventional manner.

Finally, applicant respectfully submits that Hirano's system does not meet (or suggest) the more specifically defined features of the invention as set forth in dependent claims 2-5.

For all of the above mentioned reasons, applicant respectfully submits that the rejection of claims 1-5 under 35 USC 102(b) based on Hirano is overcome, and applicant respectfully requests reconsideration and withdrawal of the rejection of record.

Other Matters

The additional references cited by the Examiner, as mentioned at page 4 of the Office Action, Ito et al (US6,510,829) who discloses a four cycle engine including oil slingers and Kurihara et al. (US 6,666,184) who discloses a four cycle engine including an oil splasher and a crankshaft having an axial passageway formed therein, have been considered by applicant. It is respectfully submitted, however, that these additional references fail to overcome the deficiencies of the Hirano reference as discussed above in relation to claims 1-5.

New claim 6 is believed to be allowable over the references of record based on the arguments above relating to claim1, as well as on the merits of the additional limitations set forth in the new claims.

Conclusion

In conclusion, applicant has overcome the Examiner's objections and rejection as presented in the Office Action; and moreover, applicant has considered all of the references of record, and it is respectfully submitted that the invention as defined by each of the present claims is clearly patentably distinct thereover.

The application is now believed to be in condition for allowance, and a notice to this effect is earnestly solicited.

If the Examiner is not fully convinced of the allowability all of the claims now in the application, applicant respectfully requests that the Examiner telephonically contact applicant's undersigned representative to expeditiously resolve prosecution of the application.

Favorable reconsideration is respectfully requested.

Respectfully submitted,

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CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited as First Class Mail in an envelope addressed to Mail Stop Amendments, Commissioner for Patents, PO Box 1450, Alexandria, VA 22313-1450, on January 3, 2005.

Dated: January 3, 2005

JPC/ms Enclosures

IN THE DRAWINGS:

Please amend Figure 7 as shown on the attached sheets (a formal replacement sheet and an annotated sheet showing the changes with red markings), in which reference numbers "9c, 9c" are replaced with --55, 55--.

FIG.7